COVID-19 Management For 1 Month - 19 Years Old: Statement by Indian Academy of Pediatrics (April 2021)

When to suspect COVID-19?*

- Fever, headache, myalgia, fatigue, tiredness, coryza, cough, sore throat, rapid breathing (anyone) OR
- Diarrhea, vomiting, abdominal pain OR
- Poor feeding in an infant, loss of taste or smell (>8 year) OR
- Rash, conjunctival congestion, mucositis, shock OR
- Asymptomatic but has a close/household contact with a COVID-19 case

*** Symptoms and signs of COVID-19 are nonspecific and mimic any viral illness.**

Whom to test?

- Testing is recommended ideally for all the suspect cases (to avoid transmission to other household members)
- Prior to any procedure/ hospitalization
- However, if resources are scarce, then testing may be deferred for both asymptomatic contacts and children with mild symptoms AND no comorbidities# AND a known positive family member (Should be isolated)
- Such children may be presumed to be COVID-19 infected and be managed as per the guidelines in this document

#Chronic kidney disease/congenital heart disease/chronic liver disease/ neurodisability/morbid obesity/severe malnutrition/current malignancy/ immunocompromised state/diabetes

Which tests?

- Testing should be done as soon as possible after onset of symptoms
- Rapid Antigen Test (RAT) in nasopharyngeal swabs (low sensitivity, so if negative, RT-PCR should be done)
- RT-PCR in nasopharyngeal ± oropharyngeal swabs (Xpert SARS-CoV-2 and Truenat give faster results)
- SARS-CoV-2 antibodies also, if features of MIS-C

Children with symptoms suggestive of COVID-19 but negative RT-PCR test, should undergo repeat RT-PCR and evaluated for other illnesses. If symptoms are protracted and RT-PCR is negative, CT chest may be done. If no alternative diagnosis, treat as per COVID-19

CLASSIFICATION OF DISEASE SEVERITY*

Mild Disease

- Fever, sore throat, rhinorrhea, cough, diarrhea, vomiting

AND

- No fast breathing (age-based)

Moderate Disease

- Fast breathing (age-based) OR Presence of hypoxia (SpO_2 90–94% on room air)

AND

- No signs of severe disease

Severe Disease

- *Pneumonia with any of these:*
  - <90%
  - Increased respiratory effort
  - Grunting, severe retractions
- Lethargy, seizures, and somnolence
- Severe diarrhea, vomiting, and abdominal pain
- *Critical disease (a subset of severe disease) is defined, if any of these is present:*
  - ARDS
  - Shock
  - Multiorgan dysfunction syndrome
  - Acute thrombosis

*** Including children who have high index of suspicion because of a family member testing positive; but child's test result is awaited.**

Mild Disease

- OPD/home Rx
- Hydration, breastfeed
- No antibiotics
- If fever—PCM; If nose block—nasal saline drops
- No investigations required
- Multivitamins may be given though of no proven value
- *Red flag signs:* Rapid breathing, SpO_2 <95, persistent fever, lethargy/drowsiness, poor feeding
- High-grade fever for >3–4 days could be due to COVID but should also investigate for alternate diagnosis CBC, CRP, Urine R/E, Blood culture, Chest X-ray

Mild Disease with comorbidities

- If ready access to health care
  - Continue as per mild disease at home
- If no ready access to health care
  - Admit for observation and evaluation
  - Manage as per comorbidities

Moderate Disease

- Admit in COVID-19 ward
- *Investigations:*
  - CBC, RFT, LFT, CRP, CXR
  - May be repeated at 48–72 hours, as per clinical condition
- If SpO_2 >94%
  - Hydration
  - Paracetamol ± antimicrobials*
- If SpO_2 ≤94%
  - Oxygen, IV steroids ± remdesivir ± antimicrobials

Severe/Critical Disease

- COVID-19 ICU/HDU/ward
- *Investigations:*
  - CBC, RFT, LFT, CRP, procal, D-dimer, ABG, lactate, ECG, CXR,
  - If needed, Trop I, ECHO, ferritin, LDH
  - May be repeated at 24–48 hrs, as per clinical condition
- Start O_2, and if needed HHFNC, CPAP, NIV, invasive ventilation
- Consider prone positioning, restrictive fluids
- IV steroids, ± remdesivir, ± enoxaparin ± antimicrobials
- Manage shock, ARDS, AKI, HLH, myocarditis as per protocol

Remdesivir (Only in hospital setting):

- 3.5-40 kg: 5 mg/kg on day 1, 2.5 mg/kg from D2 to D5
- > 40 kg: 200 mg on day 1, 100 mg from D2 to D5
- To be used within 10 days of onset of symptoms and child is on oxygen
- Contraindicated: if ALT/ AST > 5 times normal or if creatinine clearance less than 30 mL/minute

Steroids:

0.15 mg/kg of IV Dexa (max 6 mg) once daily for 5–14 days (stop at discharge).
Other steroids in special situations

Antimicrobials:*

IV Amoxicillin/Co-amoxiclav/Ceftriaxone
(In a suspect COVID case or in confirmed COVID, if bacterial co-infection suspected)

Enoxaparin:

- *<2 months:* 1.5 mg/kg/dose every 12 hour
- *>2 months:* 1 mg/kg/dose every 12 hour

Multi-system Inflammatory Syndrome in Children (MIS-C): Statement by Indian Academy of Pediatrics (April 2021)

DEFINITION OF MIS-C (WHO)

Definition of MIS-C (WHO)

0–19-years-old child with fever >3 days

AND—Two of the following:

- Rash or bilateral non-purulent conjunctivitis or muco-cutaneous inflammation signs (oral, hands or feet).
- Hypotension or shock
- Features of myocardial dysfunction, pericarditis, valvulitis, or coronary abnormalities (including ECHO findings or elevated Troponin/NT-proBNP)
- Evidence of coagulopathy (by PT, PTT, elevated d-Dimers)
- Acute gastrointestinal problems (diarrhea, vomiting, or abdominal pain)

AND

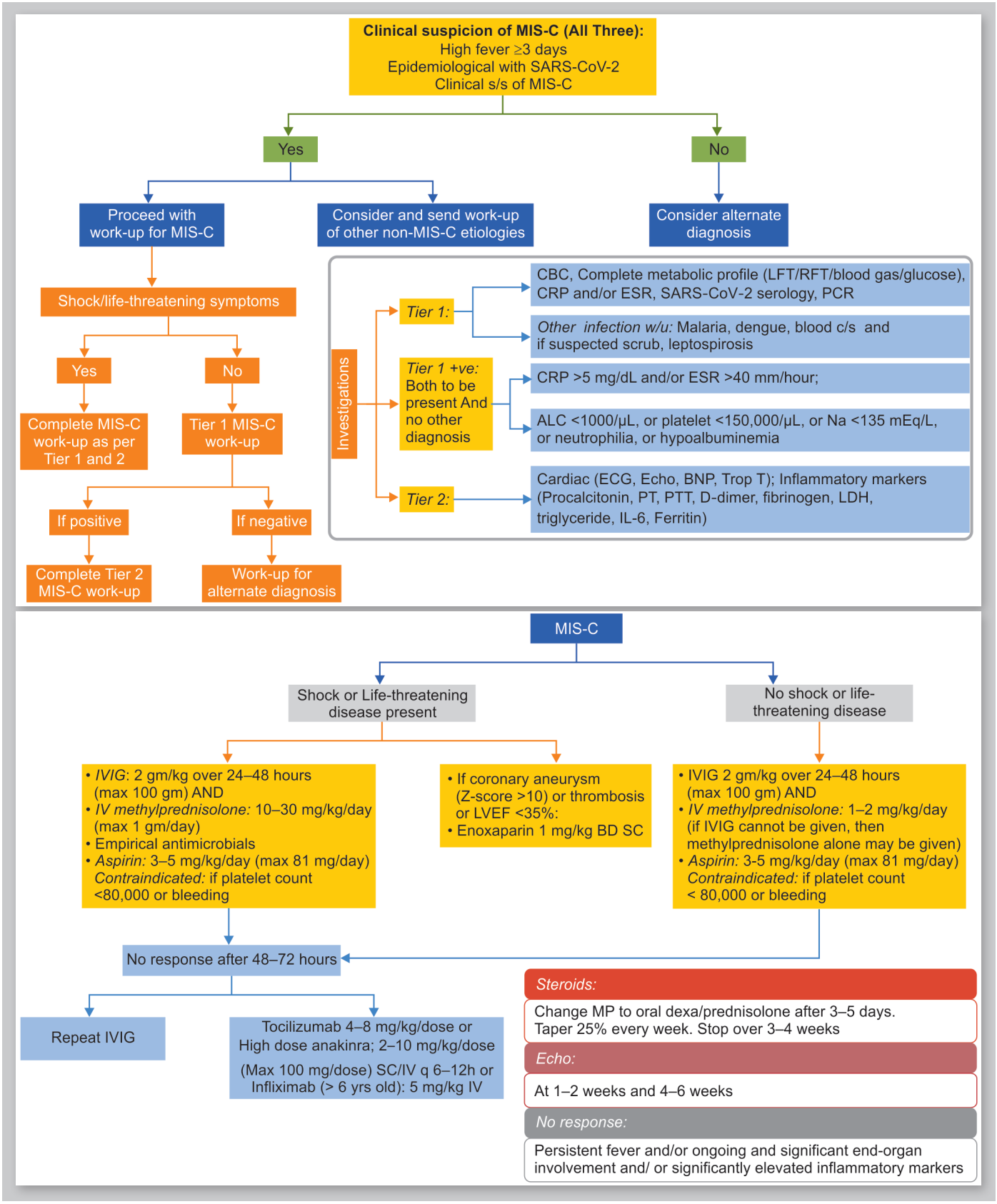
Elevated ESR, C-reactive protein, or procalcitonin

AND

No other obvious microbial cause of inflammation, including bacterial sepsis, staphylococcal or streptococcal shock syndromes.

AND

Evidence of COVID-19 (RT-PCR, antigen test or serology positive), or likely contact with patients with COVID-19



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